

# THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

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NEW YORK 21, N.Y.

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Dear Josh:

Just missed getting straightened out in our communications so will answer yours of the 28 th immediately. You need never apologise about the number of your letters as they are more of a delight than a burden.

Looking over your reprint mailing list I doubt very much that there will be any margin of overlap but the smallest and I therefore think I could go ahead and distribute them from here. I should be more than glad to aid you in any way with the further distribution of reprints at the Institute. Since we all eat together I can by sitting at the proper table for lunch communicate with anyone I desire to.

As to the authorship of Bruce's MS, the awkwardness was that ~~the~~ your idea concerned the two of us in relation to Bruce and it was he that mentioned it to me. Being the junior member of the three I perhaps am the most sensitive about such things, especially as for a while transduction was my own exclusive baby and I had spent considerable time and effort in establishing the principles and ~~the~~ first outlines of the flagella analysis. In fact it was to this particular aspect of any recombinational system to be found in Salmonella that my own training and goals had pointed. Of course no damage had been done but as I felt that way and I feel free to communicate with you on such matters I did so. I've communicated my feelings to Bruce but as you say the decision is his.

To the scientific aspects of his paper: if he is to present linked transductions as a fact, I merely think that all of the available evidence should be marshalled in its favor. His third double suffers from this lack and most certainly could be similar to your discarded hypothesis of the other double. You most certainly understand my reservation about Fla-allelism. You may recall we had some difficulty in determining whether LA-22 (aromatic requirement) was transduced to prototrophy by a single suppressor or allele until FA LT-22 accomplished the same.

(infected) By survivorship of bacteria infected with 22V I meant the number of zeros expected for any particular multiple. --- Salmonella gallinarum (SW-558), which I always use as a base phage assay, grows more slowly than typhimurium. Thus if small numbers of typhimurium cells are viable either because they were non-infected or have become lysogenic they can proliferate ~~where~~ on the phage assay plate when one is determining the recovery of phage from ~~typhimurium~~ infected ~~bacteria~~. typhimurium.

My irradiations were done with diluted broths. I have tried using LT-7 derivatives as FA assays and PLT-22 to get this same complete separation. If one observes the plates early the plaques are x visible and the few young transductions often separate from the plaques, by the time the latter have grown out the plaques have covered them and they are lysogenic, some mottled. Whenever I have obtained countable plaques I ~~still~~ no longer had any viable transductions. The inefficiency of 22B must carry you past this point or can you do this also with 22.

With regard to the independence of duals I shall try to use streptomycin resistance as the selective character presuming that any errors do to phenotypic lag will be the same in the single and the double.

I don't pretend to understand the delay experiment myself. The growth plate was I presume non-selective so that the differences don't lie there. Perhaps due to lateral differences (inter-strain cross) different pieces have more or less difficulty in being stabilized. I am convinced that the best way to do the experiment is in a steady state system and although I don't like to get involved with too many gadgets I think I'm going to have a turbidostat built. These other experiments are much too laborious.

I shall of course try mouse serums and mouse splenic extracts etc . Yes there is much to do with the year 1952 drawing to a close. But for a while now I am going to backtrack and see that all is in shape for our MS.

For me 1952 was a pretty good year, for the world-- well we'll just have to wait and see. My pessimism after the election has dimmed somewhat . I see that Senator Mc Carthy is to investigate as a first order of business the universities. No doubt you all will be first. Lucky people.

Do you still intend to go to Chamblae, and if so will you be coming this way?

Sincerely,

